



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/832,631 | 04/11/2001 | Robert K. Rowe | 1023.1123101 | 1809 |
| 28075 | 7590 | 01/18/2005 | EXAMINER | |
| CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420 | | | CURTIS, CRAIG | |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 2872 |

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8/1

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/832,631 | ROWE ET AL. | |
| | Examiner | Art Unit | |
| | Craig Curtis | 2872 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 01 April 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-62 is/are pending in the application.

4a) Of the above claim(s) 8,10,12,17,20-28,36,41,44-52 and 54-62 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7,9,11,13-16,18,19,29-35,37-40,42,43 and 53 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 26 July 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

Art Unit: 2872

DETAILED ACTION

Disposition of the Instant Application

- This Office action is responsive to Applicants' Remarks filed on 13 October 2004, which have been made of record in the file.
- In said remarks of 13 October 2004, Applicants have not amended the claims.
- Claims 1-62 are presently pending in the instant application, claims 8, 10, 12, 17, 20-28, 36, 41, 44-52, and 54-62 having previously been withdrawn from further consideration by the examiner as being drawn to non-elected inventions. Accordingly, claims 1-7, 9, 11, 13-16, 18, 19, 29-35, 37-40, 42, 43, and 53 alone will be examined as to their merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-7, 9, 11, 13-16, 18, 19, 29-35, 37-40, 42, 43, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dewey Jr. (3,950,101) in view of Stafford (5,504,575) and Kumar (US 2003/0034281 A1) and Jorgenson et al. (5,835,645).**

Dewey Jr. discloses the instant invention as claimed--a spectrometer system for performing spectroscopic determination on biological media, the spectrometer system comprising:

Art Unit: 2872

a light source for generating light (See 11 in Fig. 5);

an optical filter (14 or 114) positioned to receive light from said light source, the filter having a plurality (two or more) of bandpass regions (viz., 15, 17);

a sampler (viz., 40, 42; 45, 41) for transmitting the light into the sample and for receiving the non-absorbed light from the sample (see Fig. 5);

a detector (See 26 in Fig. 5) for receiving said non-absorbed light and for generating an electric signal indicative of the non-absorbed light,

wherein said spectrometer system has a signal-to-noise ratio (inherent), and wherein said optical filter is disposed adjacent said light source (See Fig. 5)--**EXCEPT FOR** explicit teachings of the following claimed limitations:

wherein said spectrometer system comprises an optical encoding unit positioned for encoding selected frequencies of light passing through the optical filter;

wherein said spectrometer system further comprises an optical integrating chamber wherein light reflected from the optical filter is substantially directed into the chamber and then reflected back to said optical filter, wherein said integrating chamber allows direct illumination of the filter from the light source; and

wherein said integrating chamber is an orthogonal design to preserve angular qualities of the light entering said integrating chamber.

Stafford, however, provides a teaching of an optical encoding unit (see SLM 90 in, e.g., Fig. 3) positioned for encoding selected frequencies of light passing through the optical filter (id.); **Kumar** discloses a spectrometer system in which complex integrating sphere systems may be employed (see ¶

Art Unit: 2872

[0063] on p. 6); and **Jorgenson et al.** disclose a spectrophotometer (read: spectrometer) system in which filters corresponding to those recited in the instant invention are used (see, e.g., col. 7, ll. 52-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of Dewey Jr. such that its spectrometer system further comprise the above-detailed elements, as respectively taught by Stafford, Kumar, and Jorgenson et al., for at least the purpose of optimizing the performance of said spectrometer system.

Response to Arguments

2. Applicants' arguments filed on 13 October 2004 with respect to the claims have been fully considered but have not been found persuasive.

Applicants initially argue that the Examiner's assertion that the teaching by **Dewey, Jr.** of "an optical filter (14 or 114) positioned to receive light from said light source, the filter having a plurality (two or more) of bandpass regions (viz., 15, 17)" can reasonably be taken as meeting an optical filter positioned to receive light from the light source, the filter having a plurality of bandpass regions, wherein light within a bandpass region is transmitted through the filter" [as recited in lines 4-6 of both independent claim 1 and independent claim 29] is in error because the waveband selector means of **Dewey, Jr.** do not correspond to the filter of the claimed invention. The Examiner respectfully disagrees.

It is respectfully submitted that by stating in their response that the above-referenced waveband selector taught by **Dewey, Jr.** permits the selection of only one narrow waveband at a time

Art Unit: 2872

and consequently the light passing through is of a single frequency, there is no motivation to include the optical encoding unit of **Stafford**, Applicants have mischaracterized said waveband selector of **Dewey, Jr.** As **Dewey, Jr.** states in column 5, lines 53-57, the filter elements 15, 17; and 16, 18; of the respective wavelength selectors 14 and 114 each comprise a suitable multilayer dielectric filter having a *narrow* passband. Emphasis added. **Dewey, Jr.**'s use of the adjective *narrow* to modify the noun passband is significant for at least the reason that such language precludes one from unduly limiting said passband, as Applicants' have, to a *single* frequency. Emphasis added. It is granted that said passband, so described as narrow, likely has a limited frequency range; nevertheless, that **Dewey, Jr.**'s use of the modifier narrow admits a range of frequencies is undeniable, and this being the case, there would in fact, the Examiner respectfully contends, have been sufficient motivation for one of ordinary skill in the art to have, at the time the invention was made, availed herself or himself, of the optical encoding unit teaching of **Stafford**.

With regard to Applicants' next and final argument, concerning the alleged lack of motivation for modifying **Dewey, Jr.** by including the integrating chamber of **Kumar**, the Examiner respectfully disagrees. Although the Examiner concedes that integrator 89 taught by **Kumar** indeed provides light to several systems, one of ordinary skill in the art could reasonably be expected to avail herself or himself of an integrator when modifying **Dewey, Jr.**, for at least the purpose of gauging the reflectance of light in a narrow region from said mirrors in **Dewey, Jr.**, thereby arguably optimizing the efficiency of said spectrometer system.

Art Unit: 2872

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2872

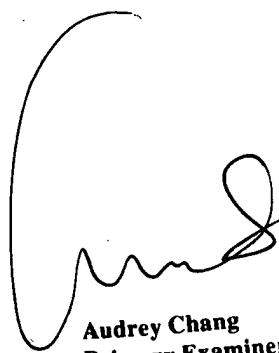
Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Curtis, whose telephone number is (571) 272-2311. The examiner can normally be reached on Monday-Friday, 9:00 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn, can be reached at (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.H.C.
Craig H. Curtis
Group Art Unit 2872
22 December 2004



Audrey Chang
Primary Examiner
Technology Center 2800